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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David E. Bennett
Coats & Bennett, P.L.L.C.
1400 Crescent Green, Suite 300
Cary, NC 27511

EXAMINER	
APPIAH, CHARLES NANA	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/767,461	BLOEBAUM ET AL.	
	Examiner	Art Unit	
	Charles N. Appiah	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *70-113* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *70-113* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 70-113 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 70, 71, 76-78, 83-85, 90, 91, 106, 107, 112 and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beason et al. (6,373,430)** in view of **Zadeh et al. (6,266,533).**

Regarding claims 70 and 84, Beason discloses a mobile terminal comprising: a GPS receiver (12) to receive GPS data (see col. 3, lines 26-33), a cellular transceiver (16) to communicate with a wireless communications network (see col. 3, lines 27-30, col. 4, lines 22-25). Beason teaches that the wireless communication units are able to calculate their location (serving as a reference location) as a function of received satellite signals, and communicate that location data to one another mobile terminal since they are all equipped with GPS receivers, (see col. 2, lines 22-58, col. 4, lines 24-34), but fails to explicitly teach that the location information is specifically GPS

Assistance Data which is transmitted to a remote mobile terminal via the wireless communication network.

In an analogous filed of endeavor, Zadeh discloses a system for GPS Assistance Data for positioning of mobiles with built-in GPS systems (see abstract). According to Zadeh, the wireless network provides range measurement assistance data to a GPS-MS as a function of the cell in which the GPS-MS is located, together with a time of calculation of the data in a positioning request message (see col. 3, lines 21-36), and the GPS-MS generates (obtains) GPS measurement data from the GPS satellites as a function of the received measurement assistance data at the time of calculation and provides this data back to a remote location for ultimately calculating the position of the GPS-MS (see col. 3, lines 36-48). Zadeh teaches that positioning a GPS enhanced mobile station using the method provides a fast and accurate positioning service that requires nominal network traffic (see col. 3, lines 8-18).

It would therefore have been obvious to one of ordinary skill in the art to combine Zadeh's GPS assistance data provisioning system with Beason's location provision system in order to allow the determining of a mobile's position or location in a fast and accurate manner that requires nominal network traffic as taught by Zadeh.

Regarding claims 71 and 85, Beason further discloses wherein the mobile terminal and the remote mobile terminal are part of a group comprising a plurality of mobile terminals communicating with the wireless communications network (see Fig. 3, col. 3, line 61 to col. 4, line 2).

Regarding claim 76, Beason further discloses wherein formation of the group is ad-hoc (see col. 3, lines 61-66, and col. 4, lines 47-57).

Regarding claims 77 and 78 Benson further discloses wherein formation of the group is based on the geographic proximity of the mobile terminal and remote terminal and membership is defined by a profile for each mobile terminal in the group (feature of unit 10 communicating with other units over public radio network such as the Family Radio Service, col. 3, lines 61-66, or being a member of a family or other small group camping or hiking and each person carrying a GPS/radio unit, col. 4, lines 49-53).

Regarding claims 82 and 90, Beason further teaches the advantage of a family or other small group in which each is carrying a GPS/radio unit and able to communicate with one another and see where everyone is located, a lost or injured member could easily and quickly be located by requesting location information (see col. 4, lines 48-57).

However, the combination of Beason and Zadeh fail to explicitly teach wherein the mobile terminal is configured to transmit the GPS assistance data responsive to a request from the remote mobile terminal.

Since Beason teaches the advantages of a small group or family group carrying GPS/radio units, it would have been obvious to one of ordinary skill in the art to use the combination of Beason and Zadeh in order to request location or GPS assistance data for quick locating and helping an injured or lost subscriber in an emergency situation especially in a group communication system.

Regarding claims 83 and 91, Beason as modified by Zadeh further discloses wherein the mobile terminal is configured to transmit the GPS assistance data automatically to the remote terminal (see col. 4, lines 22-57).

Regarding claim 106, Beason discloses a method of exchanging GPS data among mobile terminals communicating within a wireless communications network comprising: receiving, at a mobile terminal, GPS data from a remote mobile terminal over a wireless communications network, the GPS data being generated by the remote terminal from GPS data received by the remote terminal (see col. 2, lines 22-58, col. 4, lines 24-34), determining whether to trust the GPS data received from the remote mobile terminal as valid (feature of continuing to retransmit location information until an acknowledgment is received, the acknowledgment serves as determining to trust the GPs data, col. 4, lines 43-44) and determining a reference location based on the GPS data received from the remote mobile terminal See col. 4, lines 3-21). Beason fails to explicitly teach that the GPS data is specifically GPS Assistance Data , which is transmitted to a remote mobile terminal via the wireless communication network.

In an analogous filed of endeavor, Zadeh discloses a system for GPS Assistance Data for positioning of mobiles with built-in GPS systems (see abstract). According to Zadeh, the wireless network provides range measurement assistance data to a GPS-MS as a function of the cell in which the GPS-MS is located, together with a time of calculation of the data in a positioning request message (see col. 3, lines 21-36), and the GPS-MS generates (obtains) GPS measurement data from the GPS satellites as a function of the received measurement assistance data at the time of calculation

and provides this data back to a remote location for ultimately calculating the position of the GPS-MS (see col. 3, lines 36-48). Zadeh teaches that positioning a GPS enhanced mobile station using the method provides a fast and accurate positioning service that requires nominal network traffic (see col. 3, lines 8-18).

It would therefore have been obvious to one of ordinary skill in the art to combine Zadeh's GPS assistance data provisioning system with Beason's location provision system in order to allow the determining of a mobile's position or location in a fast and accurate manner that requires nominal network traffic as taught by Zadeh.

Regarding claim 107, Beason further discloses wherein the mobile terminal and the remote terminal are part of a group comprising a plurality of mobile terminals communicating via the wireless communication network (see col. 3, line 61 to col. 4, line 2, col. 4, lines 48-57).

Regarding claim 112, Beason further teaches the advantage of a family or other small group in which each is carrying a GPS/radio unit and able to communicate with one another and see where everyone is located, a lost or injured member could easily and quickly be located by requesting location information (see col. 4, lines 48-57). However, the combination of Beason and Zadeh fail to explicitly teach wherein the mobile terminal is configured to transmit the GPS assistance data responsive to a request from the remote mobile terminal.

Since Beason teaches the advantages of a small group or family group carrying GPS/radio units, it would have been obvious to one of ordinary skill in the art to use the combination of Beason and Zadeh in order to request location or GPS assistance data

for quick locating and helping an injured or lost subscriber in an emergency situation especially in a group communication system.

Regarding claim 113, Beason further discloses transmitting the GPS location data periodically from the remote terminal (see col. 4, lines 40-42).

5. Claims 72-75, 78-81 and 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beason et al** in view of **Zadeh et al** as applied to claims 71 and 85 above, and further in view of **Aravamudan et al. (6,301,609).**

Regarding claims 72-75, the combination of Beason and Zadeh fail to explicitly teach wherein the group is a hierarchical group having one or more levels, the group has one or more sub-groups and each sub-group is assigned a priority and wherein the mobile terminal determines whether or not to transmit the GPS assistance data to a remote mobile terminal based on the level, sub-group or priority assigned to the remote terminal.

Aravamudan discloses a system that utilizes the unique features of instant messaging services and communications protocols to locate users for message disposition, wherein a user creates buddy groups having specific attributes and included within each group definition is an associated user-selected priority assignment such as low, high and highest which is used for initiating or contacting the user (see col. 25-48, col. 9, line 45 to col. 10, line 51), and the priority levels are stored in a database (see col. 6, lines 13-31, col. 12, lines 45-53).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Aravamudan with the system of Beason and Zadeh in

order to ensure the provision of critical location or position information for appropriate actions such as in emergency situations.

Regarding claims 78-81, the combination of Beason and Zadeh fail to teach wherein the group is defined by a profile for each mobile terminal in the group, with the transmission of the GPS assistance data to the remote mobile terminal based on information contained within the profile of the remote terminal and the mobile terminal is configured to receive the profile of the remote mobile terminal and the mobile terminal is configured to retrieve the profile of the remote terminal from a server in the wireless communications network.

Aravamudan discloses a system that utilizes the unique features of instant messaging services and communications protocols to locate users for message disposition wherein databases are used to store a set of individual client data, rules and personal preferences including the assignment of varying priority or importance assigned to respective 'buddies' included in a buddy list for the client (see col. 6, lines 3-31) which information can be retrieved for message disposition (see col. 9, line 45 to col. 10, line 15).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Aravamudan with the system of Beason and Zadeh in order to ensure the provision of any desired information or service including GPS assistance data to users based on stored profile data such as personal preferences.

Claims 86-89 are rejected for the same reasons as set forth in the rejection of claims 72-75 above.

6. Claims 92, 93, 99, 103 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pihl et al (6,397,074)** in view of **Zadeh et al. (6,397,074)** and further in view of **Honda et al. (6,477,353)**

Regarding claim 92, Pihl discloses a method of exchanging GPS assistance data among mobile terminals communicating within a wireless communications network (see Fig. 1), receiving, at a mobile terminal communicating in a wireless communications network, GPS assistance data from an external source (see col. 2, lines 53-58). Pihl teaches that the GPS Assistance Data can be determined in a SMLC, which could reside in either the switching sub-system in the base station subsystem and that it is not important where in the network the GPS Assistance Data originates or resides (see col. 3, lines 27-35). Pihl fails to explicitly teach that the GPS data is specifically GPS Assistance Data , which is transmitted to a remote mobile terminal via the wireless communication network.

In an analogous filed of endeavor, Zadeh discloses a system for GPS Assistance Data for positioning of mobiles with built-in GPS systems (see abstract). According to Zadeh, the wireless network provides range measurement assistance data to a GPS-MS as a function of the cell in which the GPS-MS is located, together with a time of calculation of the data in a positioning request message (see col. 3, lines 21-36), and the GPS-MS generates (obtains) GPS measurement data from the GPS satellites as a function of the received measurement assistance data at the time of calculation and provides this data back to a remote location for ultimately calculating the position of the GPS-MS (see col. 3, lines 36-48). Zadeh teaches that positioning a GPS

enhanced mobile station using the method provides a fast and accurate positioning service that requires nominal network traffic (see col. 3, lines 8-18).

It would therefore have been obvious to one of ordinary skill in the art to combine Zadeh's GPS assistance data provisioning system with Pihl's location provision system in order to allow the determining of a mobile's position or location in a fast and accurate manner that requires nominal network traffic as taught by Zadeh.

Pihl as modified by Zadeh fail to disclose the feature of determining, at the mobile terminal, whether to transmit the GPS assistance data to a remote mobile terminal communicating in the wireless communications network and transmitting the GPS assistance to a remote mobile terminal via the wireless communication network based on the determination.

Honda discloses a system in which a mobile station relays information including a position information to other mobile stations including the capability of determining at the mobile station if received information including position information is to be transferred (see col. 2, lines 35-65, col. 6, line 62 to col. 7, line 17). According to Honda exchanging or sharing information with users having similar interests, for example, in a retail store, allows the users to share information at a low cost (see col. 9, line 46 to col. 10, line 60).

It would therefore have been obvious to one of ordinary skill in the art to combine the information, including position information exchange system of Honda with Pihl as modified by Zadeh's GPS assistance data provision system in order to share

information of common interest among users in a reasonable and efficient way as taught by Honda.

Regarding claim 93, the combination of Pihl, Zadeh and Honda further teaches forming a group comprising at least the mobile terminal and the remote terminal as taught by Honda (see col. 7, lines 14-17).

Regarding claim 99, the combination of Pihl, Zadeh and Honda further discloses wherein the forming a group comprises forming the group based on the geographic proximity of the mobile terminal and the remote terminal as taught by Honda (see col. 6, line 62 to col. 7, line 17).

Regarding claim 103, Pihl further teaches that the mobile station has the capability to request GPS Assistance Data using supplementary service (see col. 3, lines 27-45), while Honda discloses a system in which a mobile station relays information including a position information to other mobile stations including the capability of determining at the mobile station if received information including position information is to be transferred (see col. 2, lines 35-65, col. 6, line 62 to col. 7, line 17). According to Honda exchanging or sharing information with users having similar interests, for example, in a retail store, allows the users to share information at a low cost (see col. 9, line 46 to col. 10, line 60), but the combination of Pihl, Zadeh and Honda fail to explicitly teach the mobile terminal transmitting the GPS assistance data to the remote mobile terminal responsive to a request from the remote mobile terminal.

However, since Honda teaches the sharing or exchanging of information, it would have been obvious to one of ordinary skill in the art to use the combination of Zadeh

and Honda in order to request location or GPS assistance data for sharing information of common interest among users in a reasonable and efficient way as taught by Honda.

Regarding claim 104, the combination of Pihl, Zadeh and Honda further discloses the terminal transmitting the GPS assistance data automatically to the remote terminal as taught by Honda (see col. 9, lines 63-66).

7. Claims 94-97, and 100-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pihl et al, Zadeh and Honda et al** as applied to claims 93 and 107 above, and further in view of **Aravamudan et al. (6,301,609).**

Regarding claims 94-97, the combination of Pihl, Zadeh and Honda fail to explicitly teach wherein the group is a hierarchical group having one or more levels, the group has one or more sub-groups and each sub-group is assigned a priority and the determination of whether or not to transmit the GPS assistance data to the remote mobile terminal is based on the level, sub-group or priority assigned to the remote terminal.

Aravamudan discloses a system that utilizes the unique features of instant messaging services and communications protocols to locate users for message disposition, wherein a user creates buddy groups having specific attributes and included within each group definition is an associated user-selected priority assignment such as low, high and highest which is used for initiating or contacting the user (see col. 25-48, col. 9, line 45 to col. 10, line 51), and the priority levels are stored in a database (see col. 6, lines 13-31, col. 12, lines 45-53).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Aravamudan with the system of Pihl, Zadeh and Honda in order to ensure the provision of critical location or position information for appropriate actions such as in emergency situations.

Regarding claims 100-102, the combination of Pihl, Zadeh and Honda fail to teach wherein the group is defined by a profile for each mobile terminal in the group, with the transmission of the GPS assistance data to the remote mobile terminal based on information contained within the profile of the remote terminal and the mobile terminal is configured to receive the profile of the remote mobile terminal and the mobile terminal is configured to retrieve the profile of the remote terminal from a server in the wireless communications network.

Aravamudan discloses a system that utilizes the unique features of instant messaging services and communications protocols to locate users for message disposition wherein databases are used to store a set of individual client data, rules and personal preferences including the assignment of varying priority or importance assigned to respective 'buddies' included in a buddy list for the client (see col. 6, lines 3-31) which information can be retrieved for message disposition (see col. 9, line 45 to col. 10, line 15).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Aravamudan with the system of Pihl, Zadeh and Honda in order to ensure the provision of any desired information or service including GPS assistance data to users based on stored profile data such as personal preferences.

8. Claims 108-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beason et al** and **Zadeh** as applied to claim 107 above, and further in view of **Aravamudan et al. (6,301,609).**

Regarding claims 108-111, the combination of Beason and Zadeh fail to explicitly teach wherein the group is a hierarchical group having one or more levels, the group has one or more sub-groups and each sub-group is assigned a priority and the determination of whether or not to transmit the GPS assistance data to the remote mobile terminal is based on the level, sub-group or priority assigned to the remote terminal.

Aravamudan discloses a system that utilizes the unique features of instant messaging services and communications protocols to locate users for message disposition, wherein a user creates buddy groups having specific attributes and included within each group definition is an associated user-selected priority assignment such as low, high and highest which is used for initiating or contacting the user (see col. 25-48, col. 9, line 45 to col. 10, line 51), and the priority levels are stored in a database (see col. 6, lines 13-31, col. 12, lines 45-53).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Aravamudan with the system of Beason and Zadeh in order to ensure the provision of critical location or position information for appropriate actions such as in emergency situations.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kingdon et al. (6,411,811) discloses a system for provisioning assistance GPS data within a mobile terminal.

Agashe et al. (6,058,338) discloses a method for efficient transmission of GPS location assistance in a communication system.

Garin et al. (6,671,620) discloses a method and apparatus for GPS assistance data acquisition using almanac information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Appiah whose telephone number is 571 272-7904. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA

CHARLES APPIAH
PRIMARY EXAMINER